

The Geographical Distribution of Cowries

(Mollusca : Gastropoda)

BY

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(2 Text figures)

THE FIRST ATTEMPT to outline the whole geographical distribution of the living species of cowries (Cypraeidae) has been made by HIDALGO (1906/07, p. 182-241); unfortunately HIDALGO was rather uncritical so that about 15 per cent of his indications of habitat are erroneous (SCHILDER 1952, p. 48). These zoogeographical studies have been continued by this writer in several papers (1924, 1927, 1932, 1940), especially in the "Prodrome" (1938/39) and in the catalogue of living and fossil Cypraeacea (1941), as well as by STEADMAN & COTTON (1946). Further studies made during the last twenty years show that many corrections are necessary, as many species proved to be more widely distributed than thought previously (e.g. SCHILDER 1964), whereas for other species the area of distribution should be restricted, because some indications seem not to be reliable (e.g. SCHILDER 1960).

Our present knowledge of the distribution of living cowries is still far from complete; nevertheless it seems to be advisable to publish a revised critical list. But one should consider that collecting beach specimens at any locality does not prove the species to live there (SPICER 1941, INGRAM & KENYON 1945): thus, for instance, I do not believe that the many Central Pacific cowries recently collected as beach shells at Clipperton Island (HERTLEIN & ALLISON 1960) really belong to the West American fauna. And even collecting single living specimens does not exclude their being introduced recently by man (SCHILDER 1960).

In my papers mentioned above I have used various systems of describing the distribution of cowries both as accurately and as briefly as possible, and STEADMAN & COTTON (1946) adopted a similar system of abbreviations.

In the present paper I shall try to introduce a system of classification of faunas not restricted to the warm seas inhabited by the cowries (Cypraeidae) and their allies (Ovulidae, Eratoidae) as before, but embracing all shores of the globe so that my proposed system may be used also by students of other littoral mollusca living in cold zones.

This universal system looks rather complicated, but it allows any degree of exact description of the distribution to be expressed in the shortest way, without using the names of localities which often can be found only with great difficulty in an atlas. It has been established on the following seven principles:

1—The classification of the zoogeographical zones and provinces ("faunas") follows the arrangement established by EKMAN (1935, p. 338, fig. 165; see also SCHILDER 1956 (p. 85, fig. 36).

2—The denomination of these 9 provinces has been expressed by the digits 1 to 9 according to the chief points of the compass (SCHILDER 1956, p. 69): they begin with the centre and the north and proceed clock-wise so that the even figures designate the four chief quadrants of the compass, and the odd figures designate the intermediate directions. Therefore the nine digits express:

9 = N.W.	2 = N.	3 = N.E.
8 = W.	1 = central	4 = E.
7 = S.W.	6 = S.	5 = S.E.

According to this system, the five zones and the nine provinces of the littoral fauna (EKMAN 1935) may be arranged as follows:

Zones:		Provinces:	
Arctic		2 = Arctic	
Northern temperate (or boreal)		9 = North Atlantic	3 = North Pacific
Tropical		8 = Western	1 = Indian 4 = Pacific
Southern temperate (or antarctic)		7 = South American	5 = South Australian
Antarctic		6 = Antarctic	

The Western province (8) called hesperotropical by SCHILDER (1956, p. 74) contains three well separable sub-provinces: the West-American, the East-American, and the West-African, while the Indian and the Pacific provinces (1+4) may be comprised as Indopacific super-province (called Indo-Westpacific by EKMAN 1935 and eotropical by SCHILDER 1956). The temperate South African province of EKMAN has been united with the tropical Indian province (1) for several reasons.

3—The regions usually extending 3,000 to 5,000 kilometers (SCHILDER 1939, p. 223, map 1 and 2) have been expressed by compound numbers the first digit of which indicates the province, the second digit indicates the relative place of the region within this province. The arrangement of the nine littoral provinces and 53 zoogeographical

regions of the globe has been illustrated in the map (fig. 1).

This systematic meaning of figures and its invariable use will permit remembering the numbers of regions far more easily than the rather arbitrary arrangement of numbers published by the Challenger Society (BORRADAILE 1914).

4—However, as errors frequently happen in writing or printing digits, it seems advisable (but not necessary) to add to each number the abbreviation of the name of the region, expressed by the three first letters printed in capitals (so that they cannot be confused with abbreviations of the areas, see below). The abbreviations of the 33 regions inhabited by Cypraeidae, which will be explained in the list of areas, are as follows:

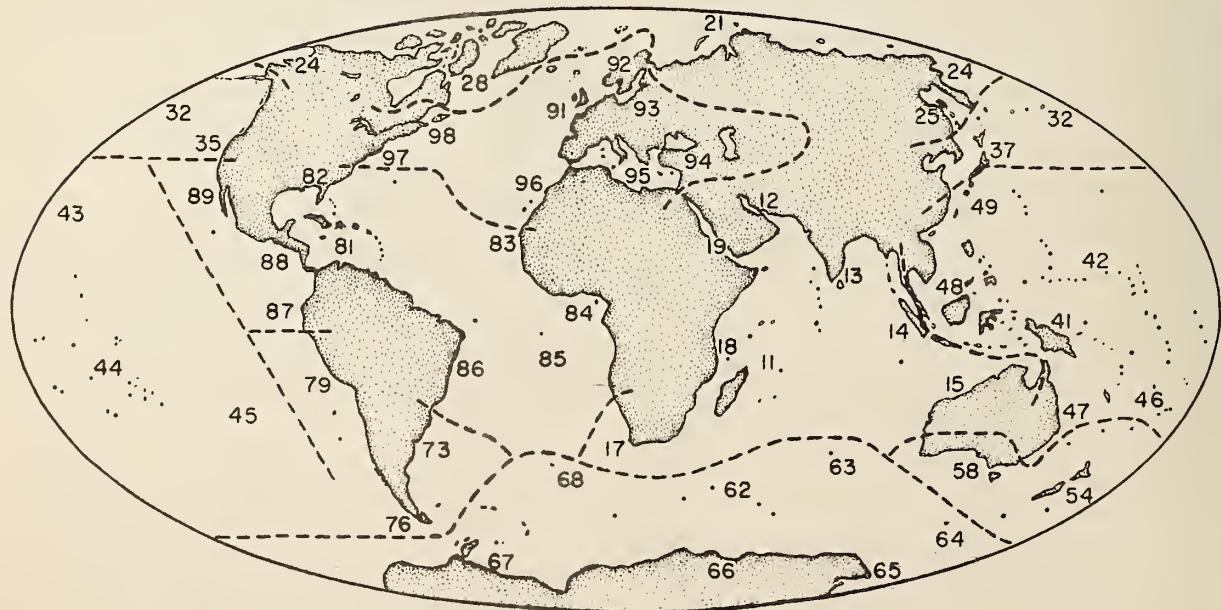


Figure 1: The littoral provinces and zoogeographical regions.

35	96	95	37
ORE	CAN	MED	JAP
89	82	83	19
CAL	FLO	SEN	ERY
88	81	84	18
PAN	ANT	GUI	ZAN
87	86	85	17
ECU	BRA	ATL	CAP
73			
ARG			
			58
			54
			TAS ZEA

5—The restriction of habitat to a general part of the region may be designated by a third digit added as an exponent.

6—But if a still greater accuracy in fixing the distribution of a species is desired, one indicates the areas the diameter of which is about one thousand kilometers ("Gebiete" in SCHILDER 1941) by a small letter mostly adopted from my last catalogue (SCHILDER 1941, p. 63-64): these letters correspond to the initial letter of a generally well known central place, island, etc. within the area, as explained in the following list.

7—Whenever one wants to designate the restricted occurrence within such a small area, one can add to the letters some exponential digits indicating the general direction within the area.

The 160 areas inhabited by living true cowries (*Cypreaeidae*, according to SCHILDER 1938/39 and 1941) will be enumerated in the following list. They have been arranged generally so that neighbouring areas follow each other: we begin with West America, East America, Europe, and West Africa, always from north to south, we continue with the Indian Ocean from South and East Africa to South Asia and Australia, then with the Western

border of the Pacific from Melanesia to Japan, and we end with the central Pacific islands. The geographical relation of each area to the others has been shown in the map (fig. 2); the affinity of the cowrie faunas in these areas has been discussed by SCHILDER 1943.

In this list the left column contains the figures and letters by which the provinces, regions, and areas have been abbreviated in this paper. The central column indicates the names of provinces and regions (including their abbreviation by three capitals), as well as several localities, islands, etc. within each area without indicating its exact limits; the capital of a locality corresponding to the abbreviation of the area has been printed in *italics*. The figures of the right column indicate the average temperature of the surface of the sea in the coldest month (February or August) in centigrades according to the maps published by G. SCHOTT (1926, 1935).

LIST OF THE AREAS INHABITED BY LIVING CYPRAEIDAE

3 North Pacific province (see also below)

35 ORE = Oregonian region

35f San Francisco: C. Mendocino to Obispo 10-12

8 Western (Atlanto-American) province

89 CAL = Californian region

89d San Diego: Santa Rosa to Cedros Is. 13-18

89c Cape San Lucas: Magdalena Bay to San José 19-21

89g Gulf of California north of the Tropic 18-21

89m Mazatlan and Tres Marias Is. 22-24

89r Revilla Gigedo Is. 23-24

88 PAN = Panamic region

88c Clipperton Island 27-28

88a Acapulco: Manzanillo to Tehuantepec 24-27

88s San Salvador, San José to Coiba Island 26-28

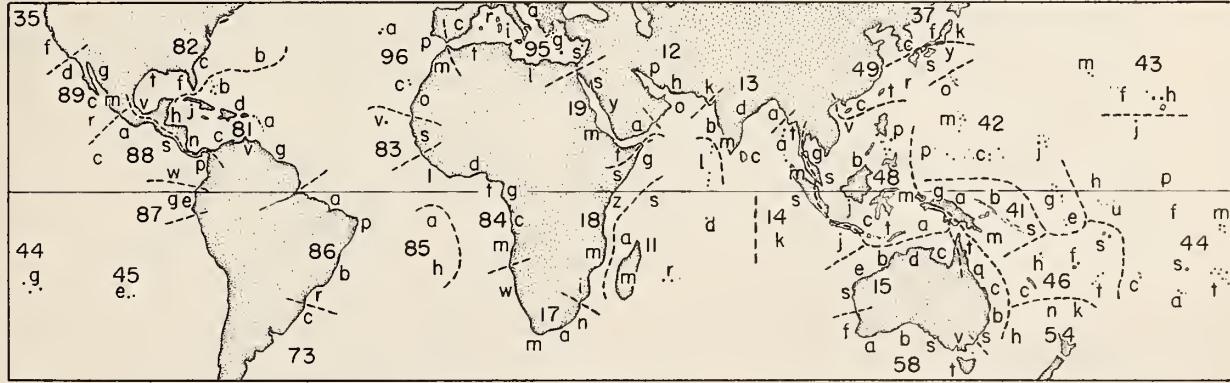


Figure 2: Geographical relation of the areas to each other.

88p	Gulf of Panama, Esmeraldas	24-26	84	GUI = Guinean region	
88w	Cocos Island (<i>Wafer Bay</i>)	26-27	84l	Liberia: Freetown to Ivory Coast	25
87	ECU = Ecuadorian region		84d	Dahomey: Ghana to Nigeria	25
87e	Ecuador, North Peru: Manta to Sechura Bay	17-23	84t	São Thomé: Príncipe to Annobon	24-25
87g	Galapagos Islands	20-22	84g	Cameroons, Fernando Poo, Gabun	24-25
82	FLO = Floridan region		84c	Congo River: Loango to Benguella	18-23
82b	Bermudas	20	84m	Mossamedes to Cunene River	16-18
82c	Carolina: Cape Hatteras to Georgia	15-19	85	ATL = South Atlantic region	
82f	Florida (East and West Coast), Key West	20-24	85a	Ascension Island	23-24
82t	Alabama to Texas	20-22	85h	St. Helena Island	20
82v	Vera Cruz: Tampico to Progreso	23-26		1 Indian province	
81	ANT = Antillean (Caribbean) region		17	CAP = Cape (South African) region	
81j	Cuba, Cayman Is., Jamaica	25-26	17w	Walvis Bay to Saldanha Bay	13-16
81b	Bahama Islands	24-25	17m	Cape Town to Mossel Bay, Agulhas Bank	15-17
81d	San Domingo (Hispaniola), Porto Rico	25-26	17a	Algoa Bay to East London	18-20
81a	Lesser Antilles: Saint Thomas to Grenada	26	17n	Pondoland, Natal, Zululand	20-21
81h	Arrowsmith Bank to Honduras	26	18	ZAN = Zanzibarian (East African) region	
81n	Nicaragua to Colon	26	18i	Inhambane: Delagoa Bay to Beira	22-23
81c	Colombia from Darien to Rio Hacha	26	18m	Mozambique: Quelimane to Querimba	24
81v	Venezuela, Curaçao, Trinidad	26	18z	Tanganyika, Zanzibar, Kenya	25
81g	Guiana to Amazonas River	26-27	18s	Somaliland: Kismaju to Obbia	23-25
86	BRA = Brasilian region		18g	Hafun, Cape Guardafui, Socotra Island	22-25
86a	Amazonas River to Parnahyba	25-26	11	LEM = Lemurian region	
86p	Pernambuco to Fortaleza, Fernando Noronha	24-26	11a	Comoro, Aldabra, Glorieuses, Providence	24-25
86b	Bahía: Aracaju to Abrolhas	24-25	11m	Nosi Bé, Madagascar, Europa Is.	22-24
86r	Rio de Janeiro: Victoria to Santos	18-23	11r	Réunion, Mauritius, Rodriguez	22-23
7	South American province		11c	Cargados Carajos to Galega Is.	24-25
73	ARG = Argentinian region		11s	Coetivy Is., Amirantes, Seychelles	25-26
73c	Paranagua to Santa Catharina	16-18	11d	Chagos Archipelago (Diego Garcia)	26-27
9	North Atlantic province		11l	Maldivian Is., Minicoy, Laccadive Is.	27-28
95	MED = Mediterranean region		19	ERY = Erythraean (Red Sea) region	
95c	Gibraltar to Catalonia, Balearic Is.	13-14	19t	Tajura: Berbera to Perim Is.	25-26
95r	Riviera: Southern France to Spezia	10-13	19m	Massawa: Assab to Port Sudan	21-25
95i	S. W. Italy, Sardinia, Sicily, Malta	13-14	19s	Kosseir, Suez, Tor, Aqaba	19-21
95a	Adriatic Sea north of Otranto and Valona	12-13	19y	Hejaz, Jidda, Yemen, Mocha	22-26
95g	Greece to Dardanelles, Crete, Rhodos	14-16	19a	Aden to Makalla	20-25
95s	Syria: Adalia to Alexandria, Cyprus	16-17	12	PER = Persian region	
95l	Cyrenaica and Libya	15-17	12o	Kuria Muria Is. to Oman	22-23
95t	Tunisia, Algeria, North coast of Morocco	14	12p	Persian Gulf west of 55° E.	15-21
96	CAN = Canarian region		12h	Strait of Hormuz, Mekran Coast	21-22
96p	Portugal to Cape Tarifa	13-15	12k	Karachi to Port Okha	22-23
96m	West coast of Morocco: Tangiers to Ifni	15-17	13	IND = Indian region	
96a	Azores	15-16	13b	Bombay: Cambay Gulf to Goa	23-26
96c	Madeira, Canary Islands	17-18	13m	Malabar Coast: Mangalore to Ticutorin	26
96o	Rio de Oro: Bojador to St. Louis	13-15	13c	Ceylon and Adams Bridge	27
8	Western (Atlanto-American) province (continued)		13d	Deccan: Karikal to Orissa	25-27
83	SEN = Senegal region		13a	Calcutta to Arakan	24-26
83v	Cape Verde Islands	21-22	14	SUM = Sumatran region	
83s	Senegal: Dakar to Konakri	19-24	14t	Tenasserim: Mergui Archipelago to Salang Is.	26-28
			14m	Malacca Strait: Penang to Medan	28
			14a	Andaman Is., Nicobar Is.	27
			14s	West coast of Sumatra and adjacent islands	28

14j	South coast of Java, Christmas Is.	26-28	49	RYU = Ryukyu region (see NOMURA & HATAI 1936)	
14k	Cocos Keeling Is.	26	49c	China from Hainan to Amoy	12-20
15	DAM = Dampierian (North West Australian) region		49t	Pescadores Is., Taiwan (Formosa)	18-24
15c	Gulf of Carpentaria	25	49r	Ryukyu Is.: Sakishima to Tanegashima	18-23
15d	Darwin: Wessel Is. to Wyndham	26	49s	Shikoku: Kyushu to Kii coast	14-16
15b	Cape Londonderry to Broome, Rowley Shoals	23-26	49y	Yokohama: Ise to Chiba, Hachijoshima	12-14
15e	Shellborough to Exmouth Gulf, Dampier Is.	22-23			
15s	Shark Bay to Geraldton, Abrolhos Archipelago	19-21			
5	South Australian province			3 North Pacific province (continued)	
58	TAS = Tasmanian (South Australian) region		37	JAP = (Northern) Japanese region	
58f	Fremantle: Cervantes Is. to Cape Leeuwin	17-18		(see NOMURA & HATAI 1936)	
58a	Albany: Flinders Bay to Esperance	14-17	37k	Kasima and East coast of North Hondo	9-11
58b	Great Australian Bight around Eucla	14	37f	Fukui: Tsushima Strait to Echigo	10-13
58s	Spencer Gulf to Beachport	13-14	37c	South coast of Corea	10
58v	Victoria: Portland to Montague Island	13-14			
58t	King Is., Flinders Is., Tasmania	11-12			
54	ZEA = Neozelanic region (see WHITLEY 1937, p. 199)			4 Pacific province (continued)	
54k	Kermadec Islands	17-18	42	MIC = Micronesian region	
54n	Norfolk Island	18-19	42o	Ogasawara Is. (Bonin Is.), Volcano Is.	20-22
54h	Lord Howe Islands, Middleton Reef	17-18	42m	Marianas Islands, Guam Is.	25-27
			42p	Yap Is., Palau Is.	27-28
4	Pacific province		42c	Caroline Is.: Uleay (Oreai) to Kusaie	27-28
47	QUE = Queensland (North East Australian) region		42j	Marshall Islands around Jaluit	27-28
47s	Sydney: Ulladulla to Port Stephens	15-17	42g	Gilbert Is. (Kingsmill Is.), Nauru Is.	28
47b	Brisbane: Sugar Loaf Point to Fraser Is.	18-19	42e	Ellice Islands, Rotuma Is.	28
47c	Capricorn Is.: Hervey Bay to Whitsunday Is.	19-20			
47q	North Queensland: Port Denison to C. Melville	20-23			
47t	Torres Strait: C. Melville to Fly River	23-26			
46	FIJ = Fijian (Southern Melanesian) region			44	POL = Polynesian region
46c	Chesterfield Is., New Caledonia, Loyalty Is.	22-24	44h	Howland Is., Baker Is., Phoenix Is.	27-28
46h	New Hebrides	23-26	44u	Union (Tokelau) Is. to Suvorov Is.	26-27
46f	Fiji Islands	24-25	44c	Cook Islands	23-24
46t	Tonga (Friendly) Is., Niue (Savage) Is.	22-24	44a	Austral Is. (Tubuai Is.) ¹	20-21
46s	Samoan Islands, Wallis Is.	27-28	44s	Society Is.: Raiatea to Tahiti	24-25
41	MEL = (Northern) Melanesian region		44t	Tuamotu Is.: Makatea to Pinaki	24-26
41s	Santa Cruz Is., Solomon Is., Nissan Is.	27-28	44g	Gambier Is.: Marutea du Sud to Henderson Is.	22-24
41b	Bismarck Archipelago, Admiralty Is.	28	44m	Marquesas Islands	26
41m	Port Moresby to Louisiade Archipelago	27	44f	Flint Is., Manahiki Is. to Malden Is.	26-27
41a	Astrolabe Bay: Huon Gulf to Aitape	28	44p	Line Is.: Jarvis Is. to Palmyra Is.	26
41g	Humboldt Bay to Geelvink Bay, Mapia Is.	28	44j	Johnston Island	25
48	MAL = Malayan (Indonesian) region			45	RAP = Rapanui Region
48m	N.W. New Guinea, Moluccas, North Celebes	28	45e	Easter Island (Rapanui)	19-20
48a	S. W. New Guinea, Aru Is., Kei Is., Timorlaut	26-27			
48t	Timor to Bali	26-27		43	HAW = Hawaiian region
48c	South Celebes, S.E. Borneo, Tiger Is.	27	43h	Hawaii to Kauai	23-24
48j	Bawean Is., North coast of Java	27	43f	French Frigate Shoals, Laysan Is.	21-22
48s	Belitung, S.E. Sumatra, Singapore, S.W. Borneo	27	43m	Midway Is.: Pearl-Hernes Reef to Kure Is.	19-21
48g	Gulf of Siam: Thailand to Pulo Condor	25-28			
48b	Natuna Is., Sarawak, N. Borneo, Tizard Bank	26-27			
48p	Palawan, Philippine Is.	26-27			
48v	Vietnam (Annam, Tongking) Paracel Reefs	20-24			

The following list contains the living cowrie species and several degrees of subspecific rank, i. e.

(p) = prospecies of almost specific rank,

(s) = morphologically well recognizable subspecies

(races),

(m) = morphologically well recognizable local mutants,

¹ As only one cowrie species (*Luria isabella lekalekana* LADD) is known from these rarely visited islands, the area generally has been treated in the list as if it were non existing or united with 44c.

(c) = clines which are morphologically recognizable in extreme areas only, but elsewhere gradually pass into the typical species,
 (i) = geographically separated, but otherwise hardly recognizable infra-species;

the other "races" distinguished by SCHILDER 1938/39 have been suppressed, as they need further research concerning both characters and exact range.

The arrangement of species agrees with my latest catalogue (SCHILDER 1941) except if recent anatomical research made changes necessary.

The areas inhabited have been arranged according to the preceding list. The regions have been indicated both by the abbreviation consisting of three capitals and by the number composed of the digits of the province and the region within; these figures are followed by the small letters indicating the areas of the region in which the species actually has been found (the letter x indicates occurrence in the region without exact area known). These letters have been replaced by an asterisk (*) if evidently all areas of the region are inhabited, even if less common species have not yet been reported from less investigated areas which are surrounded by inhabited areas; if, however, some few areas situated at the border of the distribution of the species evidently are not any more inhabited because of unfavorable conditions chiefly in temperature, the letters of such excluded areas have been added to the asterisk separated by a minus (—). Doubtful occurrence has been put in parentheses; probably artificial introduction by man (as dead or even living specimens) have been marked by a preceding cross (X) thus becoming separated from the genuine distribution. Evidently erroneous indications of habitat have been omitted.

CYPRAEIDAE GRAY, 1824

Cypraeorbinae SCHILDER, 1939

Bernaya JOUSSEAUME, 1884

(*Protocypraea* SCHILDER, 1927)

teulerei (GAZENAVETTE, 1846) ERY: 19my^a PER: 12h⁸(op)

fultoni (SOWERBY, 1903) CAP: 17n(a)

(*Bernaya* JOUSSEAUME, 1884)

catei SCHILDER, 1963 DAM: 15s⁷

Zoila JOUSSEAUME, 1884

decipiens (SMITH, 1880) DAM: 15bes²

venusta (SOWERBY, 1846) DAM: 15e (TAS: 58f²)

(s) *episema* IREDALE, 1939 TAS: 58f²

(m) *sorrentensis* SCHILDER, 1963 (DAM: 15s⁷)
 TAS: 58f²
thersites (GASKOIN, 1849) TAS: 58s
 (c) *contraria* IREDALE, 1935 TAS: 58b
friendii (GRAY, 1831) TAS: 58f
 (e) *vercoi* SCHILDER, 1930 TAS: 58a
marginata (GASKOIN, 1849) DAM: 15s⁷ TAS: 58f²(a²)
rosselli (COTTON, 1948) TAS: 58f

Siophocypraea HEILPRIN, 1887

(*Akleistostoma* GARDINER, 1948)

mus (LINNAEUS, 1758) ANT: 81cv(a)

Cypraeinae SCHILDER, 1939

(Cypraeini SCHILDER, 1927)²

Trona JOUSSEAUME, 1884

stercoraria (LINNAEUS, 1758) SEN: 83s GUI: 84*

Macrocypraea SCHILDER, 1930

zebra (LINNAEUS, 1758) FLO: 82* (—b) ANT: 81* (—g)

(i) *dissimilis* (SCHILDER, 1924) BRA: 86pbr
 ARG: 73c

cervus (LINNAEUS, 1771) FLO: 82* ANT: 81j(da²)

(p) *cervinetta* (KIENER, 1843) CAL: 89cgm
 PAN: 88*—cw ECU: 87*
 × MIC: 42j

Mauritia TROSCHEL, 1863

valentia (PERRY, 1811) QUE: 47t

mappa (LINNAEUS, 1758) (ZAN: 18z) (LEM: 11m)

DAM: 15c QUE: 47cqt FIJ: 46*

MEL: 41* MAL: 48*—gv

RYU: 49tr MIC: 42*—o

POL: 44*—gj

(c) *geographica* SCHILDER & SCHILDER, 1933

SUM: 14aj(ms)

(s) *alga* (PERRY, 1811) ZAN: 18z LEM: 11*
 (ERY: 19tm) (IND: 13c)

eglantina (DUCLOS, 1833) SUM: 14j(ms) DAM:
 15*—s ZEA: 54h QUE: 47*—s

FIJ: 46*—t MEL: 41* MAL: 48*
 -gbv RYU: 49tr(c) MIC: 42cjg(e)

² Ed. note: As we have no typographical provision for Dr. Schilder's taxon, the "infrafamily", we now introduce this type style to designate this taxon: (Infrafamily). While each lower taxon is indented one full space (an m-space), the infrafamily is indented only one half space more than the Subfamily.

histrio (GMELIN, 1791) (CAP: 17n) ZAN: 18imz
LEM: 11* IND: 13* SUM: 14*
—tm

(c) *westralis* (IREDALE, 1935) DAM: 15:dbe

grayana SCHILDER, 1930 ZAN: 18s²g (LEM: 11s)
ERY: 19* PER: 12* IND: 13b

arabica (LINNAEUS, 1758) SUM: 14* DAM: 15* ZEA:
54h QUE: 47* FIJ: 46*
MEL: 41* MAL: 48* RYU: 49*
MIC: 42*

(c) *dilacerata* SCHILDER & SCHILDER, 1939 IND: 13*

(s) *immanis* SCHILDER & SCHILDER, 1939 CAP:
17an ZAN: 18*—g LEM: 11*

maculifera SCHILDER, 1932 FIJ: 46sf(cth) (MAL: 48p)
RYU: 49trs MIC: 42*—o
POL: 44* HAW: 43*—m × PAN:
88cs

depressa (GRAY, 1824) FIJ: 46* MEL: 41b MAL:
48p (RYU: 49trs) MIC: 42*—o
POL: 44*—j × PAN: 88c

(i) *dispersa* SCHILDER & SCHILDER, 1939 ZAN: 18z
LEM: 11sl IND: 13mc
SUM: 14sjk

mauritiana (LINNAEUS, 1758) (CAP: 17an) ZAN: 18*
LEM: 11* ERY: 19tma
(PER: 12o)

(i) *regina* (GMELIN, 1791) IND: 13*—b SUM:
14* DAM: 15b QUE: 47* FIJ:
46* MEL: 41* MAL: 48* RYU:
49*—c MIC: 42* POL: 44*
HAW: 43*

scurra (GMELIN, 1791) ZAN: 18mz LEM: 11* IND:
13mc SUM: 14asj DAM: 15x

(s) *indica* (GMELIN, 1791) (SUM: 14j) QUE:
47* FIJ: 46* MEL: 41*
MAL: 48*(*)
RYU: 49tr MIC: 42*—o POL:
44* HAW: 43* × PAN: 88c

Talparia TROSCHEL, 1863

talpa (LINNAEUS, 1758) CAP: 17n ZAN: 18* LEM:
11* ERY: 19* PER: 12o
IND: 13mc SUM: 14tasj DAM:
15*—s QUE: 47cqt FIJ: 46*
MEL: 41* MAL: 48*—sgv RYU:
49trs MIC: 42*—o POL: 44*
HAW: 43*

exusta (SOWERBY, 1832) ERY: 19*—s(a)

Cypraea LINNAEUS, 1758

tigris LINNAEUS, 1758 CAP: 17n ZAN: 18* LEM: 11*
ERY: 19ta

(i) *pardalis* SHAW, 1795 IND: 13*—b SUM: 14*
DAM: 15bes ZEA: 54h QUE:
47cqt FIJ: 46* MEL: 41* MAL:
48*—g RYU: 49*—y MIC:
42* POL: 44*—j

(c) *schilderiana* CATE, 1961 POL: 44j
HAW: 43*

(hybrid) *catulus* SCHILDER, 1924, 1962 ERY:
19a(t)

pantherina SOLANDER, 1786 ERY: 19*

Lyncina TROSCHEL, 1863

aurantium (GMELIN, 1791) FIJ: 46* MEL: 41sb
MAL: 48p^o MIC: 42*—o
POL: 44cst

broderipi (SOWERBY, 1832) CAP: 17n (LEM: 11m)
nivosa (BRODERIP, 1827) (LEM: 11r) IND: 13cd
SUM: 14t

leucodon (BRODERIP, 1828) LEM: 11d

argus (LINNAEUS, 1758) ZAN: 18z LEM: 11* IND:
13cd SUM: 14asj DAM: 15es²
QUE: 47cqt FIJ: 46* MEL: 41*
MAL: 48*—g RYU: 49tr
MIC: 42*—o POL: 44up

lynx (LINNAEUS, 1758) CAP: 17n ZAN: 18* LEM:
11* ERY: 19* IND: 13cd
SUM: 14* DAM: 15*—s ZEA: 54h
QUE: 47* FIJ: 46* MEL: 41*
MAL: 48* RYU: 49*—cy MIC:
42*—o POL: 44* HAW: 43*

vitellus (LINNAEUS, 1758) CAP: 17an ZAN: 18*
LEM: 11* (ERY: 19a) IND:
13cd SUM: 14* DAM: 15*
(TAS: 58f) ZEA: 54h QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*
RYU: 49*—c MIC: 42* POL:
44*—g HAW: 43* × PAN: 88c

camelopardalis (PERRY, 1811) ERY: 19*—s(a)

reevei (SOWERBY, 1832) TAS: 58fabs

ventriculus (LAMARCK, 1810) FIJ: 46* MEL: 41sb
MAL: 48p MIC: 42*—o POL:
44*—j

schilderorum (IREDALE, 1939) FIJ: 46cfs (MAL: 48p)
MIC: 42*—o POL: 44* HAW:
43* × PAN: 88c

(i) *kuroharai* (KURODA & HABE, 1961) RYU: 49rs

sulcidentata (GRAY, 1824) HAW: 43*

carneola (LINNAEUS, 1758) CAP: 17an ZAN: 18*
LEM: 11* ERY: 19* PER: 12*
IND: 13* SUM: 14*—tk DAM: 15*
ZEA: 54kh QUE: 47* FIJ: 46*

MEL: 41* MAL: 48* RYU: 49*-c
MIC: 42* POL: 44* HAW: 43h
(m) *titan* SCHILDER & SCHILDER, 1962 ZAN: 18mz
LEM: 11mr
(m) *leviathan* (SCHILDER & SCHILDER, 1937) (POL:
44*-hu) HAW: 43hf
(Luriini SCHILDER, 1932)

Chelycypraea SCHILDER, 1927

testudinaria (LINNAEUS, 1758) (QUE: 47*-s FIJ: 46*
MEL: 41* MAL: 48mp RYU:
49trs MIC: 42*-o POL: 44*-j
(i) *ingens* (SCHILDER & SCHILDER, 1938) (CAP:
17n) ZAN: 18mz LEM: 11*
IND: 13c

Luria JOUSSEAUME, 1884

tessellata (SWAINSON, 1822) (POL: 44h) HAW: 43*
pulchra (GRAY, 1828) ERY: 19tma [s=fossil only]
PER: 12oph

isabella (LINNAEUS, 1758) CAP: 17an ZAN: 18*
LEM: 11* ERY: 19* IND: 13c
(c) *lekalekana* (LADD, 1934) SUM: 14*-tm
DAM: 15* ZEA: 54kh QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*
RYU: 49*-c MIC: 42*
POL: 44*(-j)
(c) *controversa* (GRAY, 1824) HAW: 43*
(p) *mexicana* (STEARNS, 1893) CAL: 89cgm
PAN: 88cw (ECU: 87g)

cinerea (GMELIN, 1791) FLO: 82* ANT: 81*
BRA: 83*-r

lurida (LINNAEUS, 1758) MED: 95* CAN: 96*
SEN: 83* GUI: 84*-m
(i) *oceanica* SCHILDER, 1930 ATL: 85*

Nariinae SCHILDER, 1932
(Pustulariini SCHILDER, 1932)

Pustularia SWAINSON, 1840
(*Annepona* IREDALE, 1939)

mariae SCHILDER, 1927 FIJ: 46* MEL: 41sb MAL:
48p RYU: 49r MIC: 42*-o
POL: 44* HAW: 43h
(*Pustularia* SWAINSON, 1840)

globulus (LINNAEUS, 1758) IND: 13c SUM: 14asj
DAM: 15s² QUE: 47xt
FIJ: 46*-t MEL: 41* MAL: 48*-g
RYU: 49trs MIC: 42*-o
(POL: 44p)

(s) *brevirostris* SCHILDER & SCHILDER, 1938 (CAP:
17n) ZAN: 18z LEM: 11*
(p) *nov. prospec.* HAW: 43h
margarita (DILLWYN, 1817) FIJ: 46*-t MEL: 41sba
MAL: 48p MIC: 42* POL: 44*-
gmj
(i) *tricornis* (JOUSSEAUME, 1874) LEM: 11r(s)
(ERY: 19a)

cicercula (LINNAEUS, 1758) SUM: 14tasj DAM: 15c
QUE: 47c(s) FIJ: 46*(-s)
MEL: 41*-m MAL: 48*-v
RYU: 49trs MIC: 42c POL: 44c
(i) *lienardi* (JOUSSEAUME, 1874) ZAN: 18z
LEM: 11rsd ERY: 19a
(s) *tetsuakii* KIRA, 1959 RYU: 49r HAW: 43*
bistrinotata SCHILDER & SCHILDER, 1937 (IND: 13c)
SUM: 14*-t DAM: 15c (ZEA:
54h) QUE: 47* FIJ: 46* MEL:
41* MAL: 48 -v RYU: 49trs⁶
MIC: 42* POL: 44* HAW: 43*
(*Ipsa* JOUSSEAUME, 1884)

childreni (GRAY, 1825) FIJ: 46* MEL: 41sba MAL:
48gbp RYU: 49trs MIC: 42*-o
POL: 44* HAW: 43*
(i) *lemurica* SCHILDER & SCHILDER, 1938 LEM:
11rd SUM: 14j⁶

Propustularia SCHILDER, 1927

surinamensis (PERRY, 1811) ANT: 81av²(g)
(Nariini SCHILDER, 1932)

Monetaria TROSCHEL, 1863

annulus (LINNAEUS, 1758) CAP: 17an(m) ZAN: 18*
LEM: 11* ERY: 19* PER: 12o
IND: 13* SUM: 14* DAM:
15*-es ZEA: 54h QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*
RYU: 49*-c JAP: 37kf MIC: 42*
POL: 44hucfp
(c) *obvelata* (LAMARCK, 1810) POL: 44cstgfm
moneta (LINNAEUS, 1758) CAP: 17man ZAN: 18*
LEM: 11* ERY: 19* PER: 12o
IND: 13* SUM: 14* DAM: 15*
ZEA: 54h QUE: 47* FIJ: 46*
MEL: 41* MAL: 48* RYU: 49*-c
JAP: 37f MIC: 42* POL: 44*
HAW: 43h × PAN: 88cw
× ECU: 87g

Naria BRODERIP, 1837

irrorata (GRAY, 1828) FIJ: 46s(c) MEL: 41sb
MIC: 42*-op POL: 44*-j

Erosaria TROSCHEL, 1863
 (Paulonaria IREDALE, 1930)

dillwyni (SCHILDER, 1922) FIJ: 46ft's (MIC: 42mg)
 POL: 44ucstg

becki (GASKOIN, 1836) (FIJ: 46c) MEL: 41bg
 MAL: 48m°p RYU: 49trs
 MIC: 42*-o POL: 44u
 (HAW: 43h)

macandrewi (SOWERBY, 1870) ERY: 19°ms
 (Erosaria TROSCHEL, 1863)

labrolineata (GASKOIN, 1849) SUM: 14j DAM: 15e
 ZEA: 54h QUE: 47* FIJ: 46*-t
 MEL: 41* MAL: 48*-v RYU:
 49*(-c) MIC: 42* POL: 44u

cernica (SOWERBY, 1870) (CAP: 17n) LEM: 11rd
 (i) *viridicolor* (CATE, 1962) DAM: 15es(c)
 (TAS: 58f)

(s) *tomlini* SCHILDER, 1930 ZEA: 54kn QUE:
 47sb FIJ: 46c(h)

(s) *ogasawarensis* SCHILDER, 1944 RYU: 49rsy
 MIC: 42o POL: 44h HAW: 43*

citrina (GRAY, 1825) CAP: 17an × LEM: 11m

gangranosa (DILLWYN, 1817) (CAP: 17n) ZAN:
 18z(m) LEM: 11l ERY: 19ta
 IND: 13mc(a) SUM: 14asj
 MEL: 41g MAL: 48mtcjs

boivini (KIENER, 1843) SUM: 14j MAL: 48*-av
 RYU: 49sy
 (p) *ostergaardi* (DALL, 1921) HAW: 43*

helvola (LINNAEUS, 1758) CAP: 17n ZAN: 18* LEM:
 11* ERY: 19ta(m) IND: 13cd(m)
 SUM: 14*-t DAM: 15* TAS:
 58fa° ZEA: 54h QUE: 47* FIJ:
 46* MEL: 41* MAL: 48* RYU:
 49*-c JAP: 37f MIC: 42* POL:
 44* HAW: 43* × PAN: 88c

(c) *meridionalis* SCHILDER & SCHILDER, 1938 CAP:
 17an

caputserpentis (LINNAEUS, 1758) CAP: 17an ZAN:
 18*-sg LEM: 11* IND: 13mcd
 SUM: 14* DAM: 15*-s ZEA: 54kn
 (QUE: 47t) FIJ: 46* MEL: 41*
 MAL: 48* RYU: 49* JAP: 37f
 MIC: 42* POL: 44*-j × PAN: 88cs

(c) *kenyonae* SCHILDER & SCHILDER, 1938 DAM:
 15es TAS: 58fa

(c) *caputanguis* (PHILIPPI, 1849) ZEA: 54h
 QUE: 47sbc

(c) *caputophidii* SCHILDER, 1927 HAW: 43*

caputdraconis (MELVILL, 1888) RAP: 45e

albuginosa (GRAY, 1825) CAL: 89*-d PAN: 88cw(sp)
 ECU: 87*

spurca (LINNAEUS, 1758) MED: 95* CAN: 96*
 SEN: 83* GUI: 84*-m
 (s) *sanctaehelenae* SCHILDER, 1930 ATL: 85*
 (p) *acicularis* (GMELIN, 1791) FLO: 82*-bc
 ANT: 81*-hnc BRA: 86*

poraria (LINNAEUS, 1758) ZAN: 18z LEM: 11* IND:
 13c SUM: 14sj DAM: 15e
 (i) *scarabaeus* (BORY, 1827) ZEA: 54kh QUE:
 47s FIJ: 46* MEL: 41sba
 MAL: 48mbp RYU: 49*-c
 MIC: 42* POL: 44*-gm
 HAW: 43*

erosa (LINNAEUS, 1758) CAP: 17an ZAN: 18*-sg
 LEM: 11* IND: 13cd SUM: 14*
 DAM: 15*-s ZEA: 54k QUE: 47*-s
 FIJ: 46* MEL: 41* MAL: 48*-v
 RYU: 49* MIC: 42* POL: 44*-m
 HAW: 43h
 (c) *pulchella* COEN, 1949 ZEA: 54h QUE: 47sb
 (p) *nebrites* (MELVILL, 1888) ZAN: 18zsg ERY:
 19* PER: 12ohk IND: 13b

ocellata (LINNAEUS, 1758) LEM: 11l (ERY: 19ta)
 PER: 12hk IND: 13* SUM: 14j

marginalis (DILLWYN, 1827) CAP: 17an ZAN: 18*
 LEM: 11rs ERY: 19a PER: 12o

miliaris (GMELIN, 1791) SUM: 14j DAM: 15* QUE:
 47* MEL: 41mg MAL: 48*
 RYU: 49* MIC: 42p × ZAN: 18z

(s) *eburnea* (BARNES, 1824) QUE: 47bcq FIJ:
 46chf(t) MEL: 41* (MAL: 48p)

(p) *lamarckii* (GRAY, 1825) CAP: 17an ZAN:
 18*-g LEM: 11am

(c) *redimita* (MELVILL, 1888) LEM: 11*-a
 PER: 12k IND: 13*-a SUM:
 14tmas

turdus (LAMARCK, 1810) ZAN: 18z°sg ERY: 19*
 (c) *winckworthii* SCHILDER & SCHILDER, 1938
 PER: 12* × CAP: 17a

guttata (GMELIN, 1791) FIJ: 46h MEL: 41sb
 MIC: 42c
 (i) *azumai* SCHILDER, 1960 RYU: 49s

Staphylaea JOUSSEAUME, 1884

staphylaea (LINNAEUS, 1758) CAP: 17an ZAN: 18*
 LEM: 11* (ERY: 19a) IND:
 13c(b) SUM: 14tasj DAM: 15be
 ZEA: 54h QUE: 47* FIJ: 46*
 MEL: 41* MAL: 48*-v RYU:
 49*-c MIC: 42*-o POL: 44ucst

limacina (LAMARCK, 1810) CAP: 17n ZAN: 18imz
 LEM: 11*-l IND: 13c SUM: 14sj
 DAM: 15bes ZEA: 54h QUE: 47*-s
 FIJ: 46* MAL: 48*-agv RYU: 49*
 JAP: 37f MIC: 42m
semiplota (MIGHELS, 1845) HAW: 43*

Nuclearia JOUSSEAUME, 1884

nucleus (LINNAEUS, 1758) ZAN: 18* LEM: 11* ERY:
 19* IND: 13c SUM: 14*-k DAM:
 15e ZEA: 54h QUE: 47cqt FIJ:
 46* MEL: 41* MAL: 48* RYU:
 49* MIC: 42* POL: 44*-j
 HAW: 43* [rare]
 (p) *granulata* (PEASE, 1862) POL: 44j
 HAW: 43*

Cypraeovulinae SCHILDER, 1930

(*Zonariini* SCHILDER, 1932)

Schilderia TOMLIN, 1930

achatidea (SOWERBY, 1837) MED: 95crit(gl)
 (i) *inopinata* SCHILDER, 1930 GUI: 84m
langfordi (KURODA, 1938) RYU: 49s
 (s) *nov. subspec.* QUE: 47b
hirasei (ROBERTS, 1913) RYU: 49s
teramachii (KURODA, 1938) RYU: 49s

Zonaria JOUSSEAUME, 1884

(*Zonaria* JOUSSEAUME, 1884)

zonaria (GMELIN, 1791) CAN: 96o SEN: 83s
 GUI: 84*-m
 (m) *gambiensis* (SHAW, 1909) SEN: 83s
picta (GRAY, 1824) (CAN: 96c) SEN: 83*
sanguinolenta (GMELIN, 1791) SEN: 83s
pyrum (GMELIN, 1791) MED: 95* CAN: 96*(-a)
 SEN: 83s

(c) *senegalensis* SCHILDER, 1928 SEN: 83s
 (i) *angolensis* (ODHNER, 1923) GUI: 84m
 (p) *petitiana* (CROSSE, 1872) SEN: 83s
 (GUI: 84tg)

annettae (DALL, 1909) CAL: 89cgm
 (p) *aequinoctialis* SCHILDER, 1933 ECU: 87e

(*Neobernaya* SCHILDER, 1927)

spadicea (SWAINSON, 1823) ORE: 35f^o CAL: 89d
 (Pseudozonaria SCHILDER, 1927)
robertsi (HIDALGO, 1906) CAL: 89cgm PAN: 88asp
 ECU: 87e

nigropunctata (GRAY, 1828) ECU: 87*
arabicula (LAMARCK, 1810) CAL: 87cgm PAN: 88asp
 ECU: 87*

(Cypraeovulini SCHILDER, 1941)

Cypraeovula GRAY, 1824

(*Luponia* BRODERIP, 1837)

fuscorubra (SHAW, 1909) CAP: 17w^oma
fuscodentata (GRAY, 1825) CAP: 17ma
algoensis (GRAY, 1825) CAP: 17ma
edentula (GRAY, 1825) CAP: 17a(n^o)

(*Cypraeovula* GRAY, 1824)

amphithales (MELVILL, 1888) CAP: 17a(n)
capensis (GRAY, 1828) CAP: 17a(n)

Umbilia JOUSSEAUME, 1884

armeniaca (VERCO, 1912) TAS: 58b
 (p) *hesitata* (IREDALE, 1916) TAS: 58vt QUE: 47s

Notocypraea SCHILDER, 1927

pulicaria (REEVE, 1846) TAS: 58fa^o
bicolor (GASKOIN, 1849) TAS: 58bsvt
 (m) *wilkinsi* (GRIFFITHS, 1959) TAS: 58v^o
 (c) *reticulifera* (SCHILDER, 1924) TAS: 58a
 (i) *euclia* (STEADMAN & COTTON, 1946) TAS:
 58b^o
 (s) *occidentalis* IREDALE, 1935 TAS: 58f^o
piperita (GRAY, 1825) TAS: 58f^oabsv
 (i) *dissecta* IREDALE, 1931 TAS: 58v^o
 (s) *comptoni* (GRAY, 1847) TAS: 58a^obsvt
 (m) *casta* SCHILDER & SUMMERS, 1963 TAS: 58s^o
 (c) *mayi* (BEDDOME, 1898) TAS: 58vt
angustata (GMELIN, 1791) TAS: 58svt
 (i) *moelleri* (IREDALE, 1931) TAS: 58v^o
 (p) *declivis* (SOWERBY, 1870) TAS: 58v^ovt

(*Erroneini* SCHILDER, 1930)

Erronea TROSCHEL, 1863

(*Gratiadusta* IREDALE, 1930)

walkeri (SOWERBY, 1832) LEM: 11csl SUM: 14as
 [j fossil only] DAM: 15cbe QUE:
 47*(-s) (MEL: 41b) MAL:
 48*-v RYU: 49r(s) Mic: 42c
 (p) *bregeriana* (CROSSE, 1868) FIJ: 46cf
 (MEL: 41m)
pyriformis (GRAY, 1824) IND: 13cd SUM: 14tm
 QUE: 47cqt MAL: 48*-gbv
 (c) *smithi* (SOWERBY, 1881) DAM: 15dbe

pulchella (SWAINSON, 1823) MAL: 48p RYU: 49ctr
 (s) *novaebritanniae* SCHILDER & SCHILDER, 1937
 FIJ: 46f MEL: 41b
 (s) *pericalles* (MELVILL & STANDEN, 1904) ERY:
 tm⁶a PER: 12oph
hungerfordi (SOWERBY, 1888) RYU: 49sy
 (s) *coucomi* SCHILDER, 1964 QUE: 47b
barclayi (REEVE, 1837) (CAP: 17n) LEM: 11d(r)
 (*Adusta* JOUSSEAU, 1884)
xanthodon (SOWERBY, 1832) QUE: 47*(-t)
vredenburgi SCHILDER, 1927 SUM: 14j MAL: 48t⁸(m²)
pallida (GRAY, 1828) PER: 12*-o IND: 13* SUM:
 14tm MAL: 48s(g) × ERY: 19a
 (c) *insulicola* SCHILDER & SCHILDER, 1938 SUM:
 14s⁶ MAL: 48j
subviridis (REEVE, 1835) QUE: 47* FIJ: 46c
 (p) *dorsalis* SCHILDER & SCHILDER, 1938 DAM:
 15* (MAL: 48a)
onyx (LINNAEUS, 1758) (SUM: 14j) MEL: 41g
 MAL: 48* RYU: 49* MIC: 42m
 (s) *melanesiae* SCHILDER & SCHILDER, 1937
 MEL: 41b
 (p) *adusta* (LAMARCK, 1810) ZAN: 18imz LEM:
 11*-rd PER: 12*-o IND: 13*
 SUM: 14ta
 (m) *nymphae* (JAY, 1850) LEM: 11rd
 (*Erronea* TROSCHEL, 1863)
ovum (GMELIN, 1791) SUM: 14sj DAM: 15b QUE:
 47cqt MEL: 41* MAL: 48*
 RYU: ctr MIC: 42p
errones (LINNAEUS, 1758) IND: 13*-ba SUM: 14*-k
 DAM: 15*-s ZEA: 54h QUE:
 47* FIJ: 46* MEL: 41* MAL:
 48* RYU: 49* MIC: 42mpc(g)
 POL: 44c(p) (×) ZAN: 18z(s)
cylindrica (BORN, 1778) SUM: 14sj QUE: 47*-s FIJ:
 46h(c) MEL: 41* MAL: 48*-v
 RYU: 49tr(s) MIC: 42mp(g)
 (s) *sowerbyana* SCHILDER, 1932 DAM: 15*-s
caurica (LINNAEUS, 1758) CAP: 17an ZAN: 18*
 LEM: 11* ERY: 19* PER: 12*
 IND: 13*-da SUM: 14*-k DAM:
 15* ZEA: 54h QUE: 47* FIJ:
 46* MEL: 41* MAL: 48* RYU:
 49trs MIC: 42*-o POL: 44c
 (*Melicerona* IREDALE, 1930)
felina (GMELIN, 1791) CAP: 17an ZAN: 18imz
 LEM: 11m(a)
 (c) *fabula* (KIENER, 1843) ERY: 19tma
 PER: 12*
 (p) *listeri* (GRAY, 1824) LEM: 11*-am IND: 13*-a

SUM: 14asj TAS: 58v³ ZEA: 54h
 QUE: 47* FIJ: 46* MEL: 41*
 MAL: 48*-jsgv RYU: 49trs MIC:
 42mpc(g) POL: 44c ×CAP: 17n

Notadusta SCHILDER, 1935

punctata (LINNAEUS, 1771) (CAP: 17n) ZAN: 18z
 LEM: 11*-1 (ERY: 19ta) IND:
 13c SUM: 14asj DAM: 15*-s QUE:
 47*-s FIJ: 46* MEL: 41* MAL:
 48*-gv RYU: 49tr(s) MIC: 42*-o
 (i) *trizonata* (SOWERBY, 1870) POL: 44cstmf
rabaulensis SCHILDER, 1964 MEL: 41b MAL: 48p
katsuae (KURODA, 1960) MAL: 48p RYU: 49rs
martini (SCHEPMAN, 1907) QUE: 47c MAL: 48mp
superstes (SCHILDER, 1930) FIJ: 46h

Palmadusta IREDALE, 1930

asellus (LINNAEUS, 1758) ZAN: 18z LEM: 11* IND:
 13c SUM: 14tasj DAM: 15*
 ZEA: 54h QUE: 47* FIJ: 46*
 MEL: 41* MAL: 48*-v RYU:
 49*-c MIC: 42*-o POL: 44fp(hu)
clandestina (LINNAEUS, 1767) CAP: 17n ZAN: 18*-sg
 LEM: 11* ERY: 19ta IND: 13mc
 SUM: 14asj DAM: 15*-s ZEA:
 54h QUE: 47* FIJ: 46* MEL:
 41* MAL: 48*-sgv RYU: 49*-c
 MIC: 42*-o POL: 44cp(hu)
artuffeli (JOUSSEAU, 1876) RYU: 49*-c JAP: 37f
 MIC: 42o(m)
saulae (GASKOIN, 1843) SUM: 14t DAM: 15b QUE:
 47* MAL: 48p (RYU: 49s)
 MIC: 42p [rare, scattered]
contaminata (SOWERBY, 1832) CAP: 17n LEM: 11rs
 SUM: 14a DAM: 15e QUE: 47bc
 FIJ: 46c MEL: 41b MAL: 48cjsgbp
 RYU: 49r
lutea (GMELIN, 1791) (IND: 13c) SUM: 14sj DAM:
 15* MEL: 41g MAL: 48*-v
 RYU: 49*-c
 (p) *humphreysi* (GRAY, 1825) ZEA: 54h QUE:
 47* FIJ: 46*-h(s) MIC: 42j
ziczac (LINNAEUS, 1758) CAP: 17an ZAN: 18*(-sg)
 LEM: 11* ERY: 19* PER: 12oh(p)
 IND: 13mc SUM: 14aj(s) DAM:
 15e QUE: 47*-s FIJ: 46*-s MEL:
 41b(s) MAL: 48mtcp RYU: 49*-c
 MIC: 42mpc
diluculum (REEVE, 1845) CAP: 17n ZAN: 18imz
 ERY: 19a

(c) *virginalis* SCHILDER & SCHILDER, 1938 LEM: 11*-1 ERY: 19a

lentiginosa (GRAY, 1825) (ERY: 19a) PER: 12*(-o) IND: 13bmc

Purpuradusta SCHILDER, 1939

gracilis (GASKOIN, 1849) IND: 13c SUM: 14masj ZEA: 54h QUE: 47* MEL: 41b(m) MAL: 48* RYU: 49* JAP: 37f(c) MIC: 42mc(op)

(c) *irescens* (SOWERBY, 1870) DAM: 15* TAS: 58f

(i) *notata* (GILL, 1858) ZAN: 18z²(sg) ERY: 19* PER: 12*

hammondae (IREDALE, 1939) DAM: 15*-s QUE: 47*-s (s) *raysummersi* SCHILDER, 1960 MAL: 48p

fimbriata (GMELIN, 1791) CAP: 17an ZAN: 18z(im) LEM: 11* (ERY: 19at) IND: 13c SUM: 14asj DAM: 15be MEL: 41g MAL: 48mtcbp RYU: 49trs MIC: 42mp

(i) *unifasciata* (MIGHELS, 1845) FIJ: 46fs MIC: 42j POL: 44stgmp HAW: 43* *minoridens* (MELVILL, 1901) (SUM: 14a) ZEA: 54h QUE: 47* FIJ: 46* MEL: 41sb MAL: 48p RYU: 49rs MIC: 42p POL: 44*-mpj(g)

serrulifera (SCHILDER & SCHILDER, 1938) POL: 44*-j (huc)

microdon (GRAY, 1828) SUM: 14j (ZEA: 54h) (QUE: 47cqt) FIJ: 46* MEL: 41sb MAL: 48mtbp(g) RYU: 49trs

(s) *chrysalis* (KIENER, 1843) ZAN: 18z LEM: 11amr ERY: 19ta

Blasicrura IREDALE, 1930

quadrimaculata (GRAY, 1824) SUM: 14msj DAM: 15* QUE: 47cqt (FIJ: 46f) MEL: 41* MAL: 48*-v RYU: 49tr MIC: 42pj(c)

luchuana (KURODA, 1960) RYU: 49r (s) *dayritiana* (CATE, 1963) MAL: 48p

coxeni (Cox, 1873) MEL: 41s (m) *hesperina* SCHILDER & SUMMERS, 1963 MEL: 41bmag

pallidula (GASKOIN, 1849) SUM: 14j DAM: 15* ZEA: 54h QUE: 47cqt FIJ: 46chf MEL: 41* MAL: 48*-g RYU: 49tr MIC: 42p

(c) *summersi* (SCHILDER, 1958) FIJ: 46fts

interrupta (GRAY, 1824) IND: 13mc SUM: 14*-k MAL: 48matjp

rashleighana (MELVILL, 1888) FIJ: 46c (s) *eunota* (TAYLOR, 1916) HAW: 43hf × PAN: 88w

(p) *latrix* (MELVILL, 1888) HAW: 43* *teres* (GMELIN, 1791) CAP: 17an ZAN: 18*-sg LEM: 11* IND: 13c SUM: 14*-k DAM: 15* ZEA: 54h QUE: 47* FIJ: 46* MEL: 41* MAL: 48*-sgv RYU: 49*-c MIC: 42* POL: 44*-g(t) HAW: 43* × PAN: 88cp

(p) *subteres* (WEINKAUFF, 1881) POL: 44cstg *goodalli* (SOWERBY, 1832) FIJ: 46s MIC: 42ge(m) POL: 44*-j

Bistolida COSSMANN, 1920

kieneri (HIDALGO, 1906) ZAN: 18imz LEM: 11* IND: 13c (s) *depresteri* (SCHILDER, 1933) SUM: 14*-k ZEA: 54h QUE: 47* FIJ: 46* MEL: 41* MAL: 48*-v RYU: 49tr(s) MIC: 42m

(i) *landeri* SCHILDER & GRIFFITHS, 1962 POL: 44p *oweni* (SOWERBY, 1837) ZAN: 18z LEM: 11*-1 (i) *vasta* (SCHILDER & SCHILDER, 1938) CAP: 17n(a)

hirundo (LINNAEUS, 1758) ZAN: 18z LEM: 11* (ERY: 19t) IND: 13mc SUM: 14* DAM: 15* ZEA: 54h QUE: 47*-s FIJ: 46* MEL: 41* MAL: 48* RYU: 49*-c MIC: 42* POL: 44huc

ursellus (GMELIN, 1791) SUM: 14*-tk (DAM: 15b) ZEA: 54h QUE: 47cqt FIJ: 46*(-s) MEL: 41* MAL: 48*-gv RYU: 49trs MIC: 42g(e)

erythraeensis (SOWERBY, 1837) ERY: 19* *stolida* (LINNAEUS, 1758) CAP: 17n ZAN: 18imz LEM: 11amrs (IND: 13c) SUM: 14tsj DAM: 15be QUE: 47*-s FIJ: 46* MEL: 41* MAL: 48mjsbp RYU: 49*-c JAP: 37k MIC: 42* POL: 44hufp

Ovatipsa IREDALE, 1931

chinensis (GMELIN, 1791) SUM: 14j DAM: 15*-s QUE: 47* FIJ: 46*-t MEL: 41* MAL: 48mtp RYU: 49*-c MIC: 42* POL: 44p(hu)

(i) *amiges* (MELVILL & STANDEN, 1915) HAW: 43h

(i) *variolaria* (LAMARCK, 1810) CAP: 17an ZAN: 18*-sg LEM: 11* (ERY: 49tax)
 (m) *tortirostris* (SOWERBY, 1906) CAP: 17a(n)
 (p) *coloba* (MELVILL, 1888) ERY: 19a (PER: 12k) IND: 13bmc SUM: 14ma

Cribraria JOUSSEAUME, 1884

cribraria (LINNAEUS, 1758) LEM: 11rcdl ERY: 19ta(m)
 IND: 13c SUM: 14*-k DAM: 15bes TAS: 58f QUE: 47*-s FIJ: 46* MEL: 41* MAL: 48*-acsv(j)
 RYU: 49trs MIC: 42*-o POL: hp × HAW: 43h
 (c) *comma* (PERRY, 1811) CAP: 17n ZAN: *-sg
 LEM: 11ams ERY: 19a
cribellum (GASKOIN, 1849) LEM: 11r
esontropia (DUCLOS, 1833) LEM: 11r
catholicorum SCHILDER & SCHILDER, 1938 QUE: 47c
 FIJ: 46ch MEL: 41sb
gaskoini (REEVE, 1846) HAW: 43hf × MIC: 42j
cumingi (SOWERBY, 1832) FIJ: 46s MIC: 42g(ce)
 POL: 44*-mpj

SUMMARY

This accurate and concise method to catalogue reliable and probable localities facilitates both to map the distribution of each species and subspecies, as well as to compose lists of cowries collected or expected at any locality. The communicated data answer our present knowledge which surely will be increased by future investigations.

LITERATURE CITED

BORRADAILE, L. A.
 1914. Bibliography of the marine fauna: Synopsis of the classification. 2nd. ed. London: Challenger Soc.

EKMAN, SVEN
 1935. Tiergeographie des Meeres. Leipzig. 142 pp.; 242 figs.

HERTLEIN, LEO GEORGE & EDWIN C. ALLISON
 1960. Species of the genus *Cypraea* from Clipperton Island. The Veliger 2 (4): 94-95; plt. 22 (1 April 1960)

HIDALGO, JOAQUIN GONZALES
 1906. Monografía de las especies vivientes del género *Cypraea*. Mem. Acad. Cienc. Madrid, 25: 1-240; (1907) 241-588; I to XV.

INGRAM, WILLIAM MARCUS & KARL WALTON KENYON
 1945. Cypraeidae of the Admiralty Islands. Nautilus 58 (4): 129-134

NOMURA, SHICHIHEI & KOTORI HATAI
 1936. A note on the zoological provinces in the Japanese Seas. Bull. Biogeogr. Soc. Japan 6 (21): 207-214; plt. 13

SCHILDER, FRANZ ALFRED
 1924. Systematischer Index der rezenten Cypraeidae. Arch. Naturgesch. 90 (A.4): 179-214; 1 diagram
 1927. Revision der Cypraeacea (Moll. Gastr.). Arch. für Naturgesch. 91 (for 1925) (A. 10): 171 pp.; 1 diagram
 1932. Cypraeacea. In Fossilium Catalogus I: Animalia, part 55: 276 pp.
 1941. Verwandtschaft und Verbreitung der Cypraeacea. Arch. Molluskenk. 73 (2-3): 57-120; 2 plts.
 1943. Zur Verwandtschaft der Litoralfaunen. Arch. Molluskenk. 75 (2-3): 68-82; 2 maps
 1952. Einführung in die Biotaxonomie (Formenkreislehre). Jena, 162 pp.; 121 maps.
 1956. Lehrbuch der allgemeinen Zoogeographie. Jena, 150 pp.; 134 maps and diagrams.
 1960. Probleme der Zoogeographie. Zool. Anz. Suppl. 23: 369-373; 4 maps
 1964. The distribution of *Erronea walkeri* SOWERBY (Cypraeidae). Hawaiian Shell News, n.ser. 49: 7-8; 1 map

SCHILDER, FRANZ ALFRED, & MARIA SCHILDER
 1938-1939. Prodrome of a monograph on living Cypraeidae. Proc. Malacol. Soc. London, 23(3-4): 119-231.
 1940. Die Verbreitung und Häufigkeit der rezenten Cypraeidae. Arch. Moll. 72 (2-3): 33-56

SCHOTT, GERHARD
 1926. Geographie des Atlantischen Ozeans. 2nd. ed. Hamburg. 368 pp.; 28 plts.; 115 figs.
 1935. Geographie des Indischen und Stillen Ozeans. Hamburg. 413 pp.; 38 plts.; 114 figs.

SPICER, VARNUM DENNIS PHILIP
 1941. Shells from Midway. Nautilus 55 (1): 1-2

STEADMAN, W. R. & BERNARD C. COTTON
 1946. A key to the classification of the cowries (Cypraeidae). Rec. So. Austral. Mus. 8: 503-530; 6 plts.

WHITLEY, G. P.
 1937. The Middleton and Elizabeth Reefs. Austral. Zoologist 8: map on p. 199

